

**CERTIFICATE OF TRANSMISSION BY FACSIMILE (37CFR1.8)****PLEASE DELIVER TO EXAMINER JEREMY C. NORRIS****Docket No.** IEN-10-5202-C1**FAX/COPY RECEIVED**

MAR 12 2002

**Applicant(s):** Fallon et al

TECHNOLOGY CENTER 2800

**Serial No.** **Filing Date** **Examiner** **Conf. No.** **Group Art Unit**09/690,485      October 17, 2000      Jeremy Norris      2533      2841**Invention:** TWO SIGNAL ONE POWER PLANE CIRCUIT BOARD

I hereby certify that this

**Amendment After Final Rejection and Declaration of Ross W. Keesler**

are being transmitted via facsimile to the United States Patent and Trademark Office

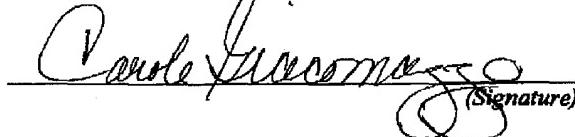
Fax. No. 703 872 9319 on March 12, 2002 5 pages to follow  
(Date)**TO:** Examiner Norris

Attached are an amendment after final rejection and declaration responsive to your action of January 30, 2002.

It is not believed that any fees are required. However, the Commissioner is hereby authorized to charge payment of fees associated with this communication, or credit any overpayment, to Deposit Account No. 09-0457.

**FROM:** William N. Hogg  
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(Typed or Printed Name of Person Signing Certificate)

  
(Signature)

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of  
Fallon et al.

: Confirmation No. 2533

Ser. No. 09/690,485

: Art Unit 2841

Filed: October 17, 2000

: Examiner: Jeremy Norris

Title: **TWO SIGNAL ONE POWER PLANE**  
**CIRCUIT BOARD**

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Atty. Docket No. END919960138US2 (IEN-10-5202-C1)

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## AMENDMENT AFTER FINAL REJECTION

Box Non-Fee Amendment  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Responsive to the Examiner's final rejection of January 30, 2002, it is respectfully requested that the Examiner reconsider the rejection and allow claims 19 and 20.

The Examiner has rejected claim 19 under 35 USC § 102(e) as being anticipated by Bhatt et al, U.S. Patent 5,822,856. In the previous amendment, the applicants pointed out that, with respect to Bhatt et al, layers 310 and 312 are not photoimageable materials of cured dielectric, and there is nothing in the specification that would teach or suggest that the layers 310 and 312 would be photoimageable dielectric. The Examiner cites column 3, lines 55-68 as follows:

"In step 100 of FIG. 1(a) a circuit board substrate is formed. The substrate may be a ceramic substrate (e.g. alumina, or beryllia); or a metal substrate (e.g. Cu, Al, Invar, Covar, or Cu-Invar-Cu) covered with dielectric material (e.g. polyimide, or epoxy); or an organic substrate (e.g. epoxy) preferably filled with axially stiff fibers (fiberglass or polyaramide fibers) or a flexible substrate of dielectric polymer films (e.g. polyimide) and metal foils (e.g. copper). For example in FIG. 3 circuit board substrate 302 includes two buried metal wiring layers 304, 306 (power and ground planes) and three dielectric layers 308, 310, 312. The dielectric layers may be ceramic or organic material."

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The Examiner goes on to state:

"Polyimide is well known in the art to be a photoimageable material. Therefore, it is clear to the Examiner that Bhatt does indeed disclose photoimageable layers."

It is respectfully submitted, however, that while some polyimides are photoimageable, nevertheless many are not. Thus, the blanket statement that "Polyimides are photoimageable is not true of all polyimides and there is no indication in Bhatt et al that photoimageable polyimides are to be employed. The enclosed declaration of one of the inventors, Mr. Ross Keesler, states that there are both photoimageable and non-photoimageable polyimides. Mr. Keesler further states that he is not aware of any sites of IBM where photoimageable polyimides are used in packaging. Since the Bhatt et al reference is an IBM patent, there nothing in it that could or would suggest that photoimageable polyimides would be the choice. Indeed, as pointed out previously, the embodiment described in detail is a non-photoimageable material, and drilling is the method described to form the openings. It is submitted that there is nothing within the four corners of Bhatt et al which would teach or suggest that one of the many materials enumerated might be of a photopatternable nature. Moreover, most of the others are not photopatternable and, thus, would not teach one to use a photopatternable material; and many polyimides are not photopatternable. As pointed out previously, "the reference must be enabling and describe the applicant's claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." In re Paulson, 30 F.3d 1475, 1478 (Fed. Cir. 1994). Also, the courts have held that "invalidity by anticipation requires that the four corners of a single, prior document describe every element of a claimed invention, either expressly or inherently, such that a person of ordinary skill in the art could practice the invention without undue experimentation." Advanced Display System Inc. v. Kent State University, 54 USPQ2d 1673, 1679 (Fed. Cir.

2000). It is submitted that one material in a list of many materials, most of which are not photopatternable, and which material in that list may be a photopatternable composition but which is not necessarily one, does not come up to this standard. Therefore, reconsideration and allowance of claim 19 is respectfully requested.

With regard to claim 20, the Examiner states: "Regarding Applicant's argument that the holes being 'photoformed' is not a process limitation but rather a characteristic of the holes themselves, they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references." It is pointed out, however, that the Bhatt et al reference does not teach photoformed holes, does not suggest it and, as noted above, there is no indication in Bhatt et al that the holes could be photoformed. As pointed out previously, the holes themselves are being claimed as a characteristic of the hole itself and not a process of forming the hole. Thus, the Examiner's rejection is respectfully traversed.

In view of the above, it is respectfully requested that the final rejection be withdrawn and that claims 19 and 20 be allowed.

Respectfully submitted,

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Date: 3-12-02

  
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